mercaptoalkyl, alkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $SC(O)R_6$, $OS(O)R_6$, $OS(O)_2R_6$, $NHC(O)R_6 = NR_4$ or NHR_4;

R_4 is OH, alkyl, alkoxy, poly(ethylene glycol), alkenyl, aryl or arylalkyl; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

provided that:

when R_6 is propyl, R_2 is Br, R_3 is H or Br and R_9 is Br, then Z is other than H, $OC(O)CH_3$ or OH;

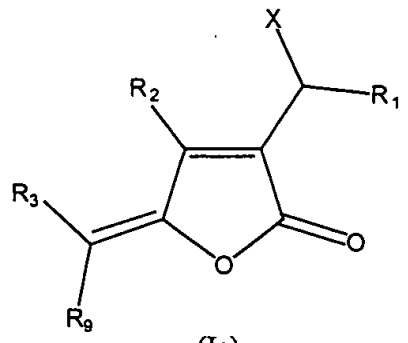
when R_6 is propyl, R_2 is Br, R_3 is H and R is I, then Z is other than $OC(O)CH_3$ or OH;

when R_6 is propyl, R_2 is Br, R_3 is H and R is Cl, then Z is other than OH;

when R_6 is propyl, R_2 is H, R_3 and R are Br, then Z is other than H; and

when R_6 is propyl, R_2 is Br, R_9 is Cl and Z is H, then R_3 is other than Cl.

2. (twice amended) A compound according to formula (Ia):



(Ia)

wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

X is a halogen, OH, OOH, $OC(O)R_1$ or =O;

R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

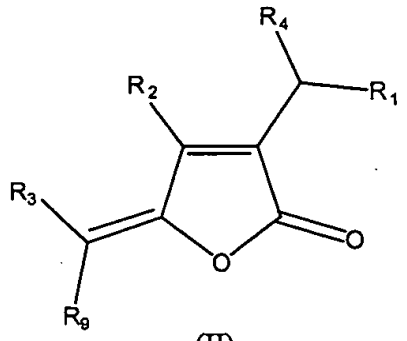
provided that:

when R_1 is propyl, R_2 is Br, R_3 is H or Br and R_9 is Br, then X is other than $OC(O)CH_3$ or OH;

when R_1 is propyl, R_2 is Br, R_3 is H and R_9 is I, then X is other than OC(O)CH, or OH; and

when R_1 is propyl, R_2 is Br, R_3 is H, R_9 is Cl, then X is other than OH.

3. (twice amended) A compound according to formula (II):



(II)

wherein R_1 is hydrogen, [unsubstituted or substituted, straight chain or branched chain, hydrophobic, hydrophilic or fluorophilic] alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_4 is selected from halogen, amine, azide, hydroxyl, thiol, or hydrophobic, hydrophilic or fluorophilic alkyl, alkoxy, mercaptoalkylalkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $OC(O)R_1$, $SC(O)R_1$, $OS(O)R_1$, $OS(O)_2R_1$, $NHC(O)R_1$, $OC(O)NHR_1$, or =O; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

provided that:

when R_4 is propyl, R_2 is Br, R_3 is H or Br, and R is Br, then R_1 is other than H, $OC(O)CH_3$ or OH;

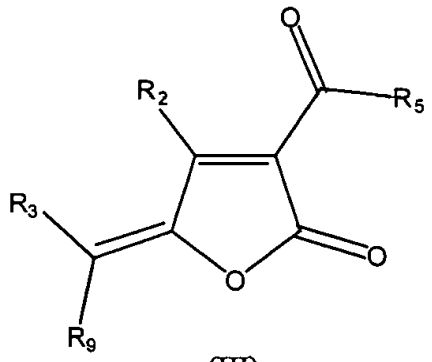
when R_4 is propyl, R_2 is Br, R_3 is H, R_9 is I, then R_1 is other than OC(O)CH, or OH;

when R_4 is propyl, R_2 is Br, R_3 is H, R_9 is Cl, then R_1 is other that OH;

when R_4 is propyl, R_2 is H, R_3 and R_9 are Br, then R_1 is other than H; and

when R_4 is propyl, R_2 is Br, R_3 and R_9 are Cl, then R_1 is other than H.

4. (twice amended) A compound according to formula (III):



(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

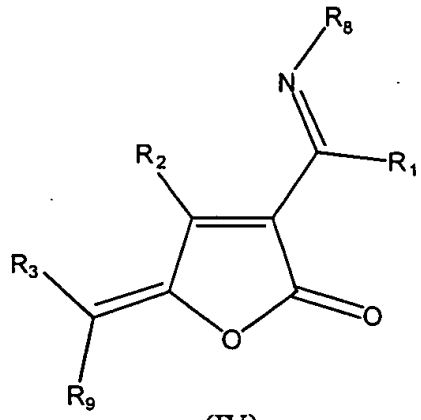
R_5 is OH or the same as R_1;

R_9 is halogen;

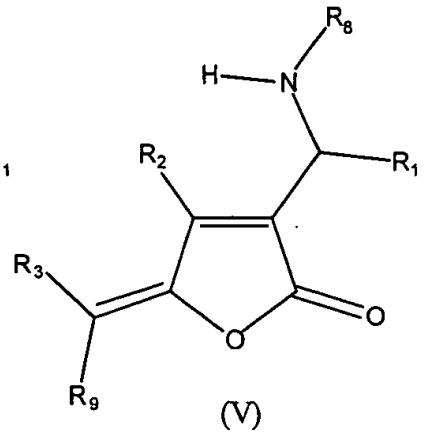
R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

5. (twice amended) A compound according to formula (IV) or (V):



(IV)



(V)

wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

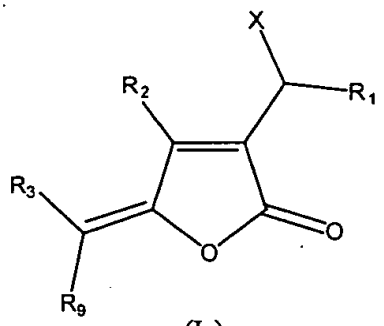
R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_8 is OH, NHR_1, $NHC(X)NH_2$, $NHC(X)NHR_1$ or R_1 where X is O, S or NR_1; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic.

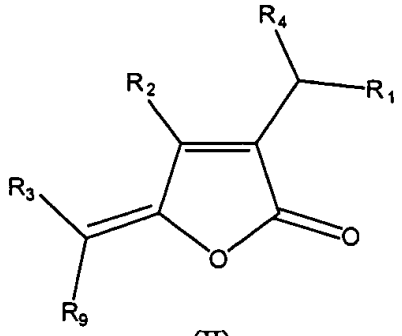
6. (twice amended) A method for forming a compound of formula (Ia), comprising reacting a fimbrolide with a halogenating agent and/or an oxygenating agent to form the compound of formula (Ia):



(Ia)

wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;
X is a halogen, OH, OOH, $OC(O)R_1$ or =O;
R_2 and R_3 are independently or both hydrogen or halogen; and
R_9 is halogen.

9. (twice amended) A method for forming a compound of formula II, comprising displacing and/or functionalizing a halogen or oxygen substituent in the side chain of a fimbrolide compound by treating the fimbrolide compound with a nucleophile or an electrophile to form the compound of formula (II):



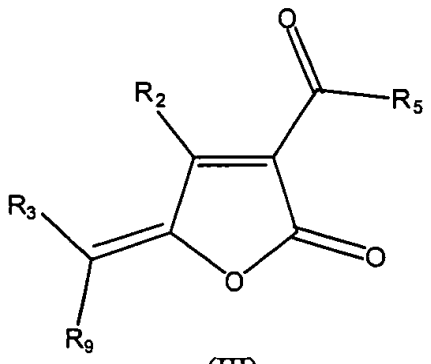
(II)

wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;
R_2 and R_3 are independently or both hydrogen or halogen;
R_9 is halogen; and
R_4 is selected from halogen, amine, azide, hydroxyl, thiol, alkyl, alkoxy, mercaptoalkyl, alkenyloxy, mercaptoalkenyl, aryloxy, mercaptoaryl, arylalkyloxy, mercaptoarylalkyl, $OC(O)R_1$, $SC(O)R_1$, $OS(O)R_1$, $OS(O)_2R_1$, $NHC(O)R_1$, $OC(O)NHR_1$, or =O;

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

provided that when R_4 is propyl, R_2 is Br, R_3 and R_9 are Cl, then R_1 is other than H.

12. (twice amended) A method for forming a compound of formula (III), comprising reacting an hydroxyl substituent in the side chain of a fimbrolide with an oxidising agent to form the compound in accordance with formula (III):



(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH or the same as R_1;

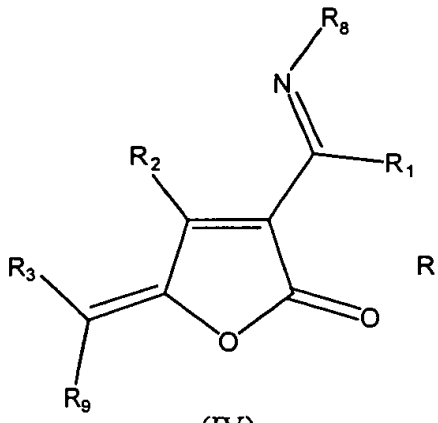
R_9 is halogen;

R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl; and

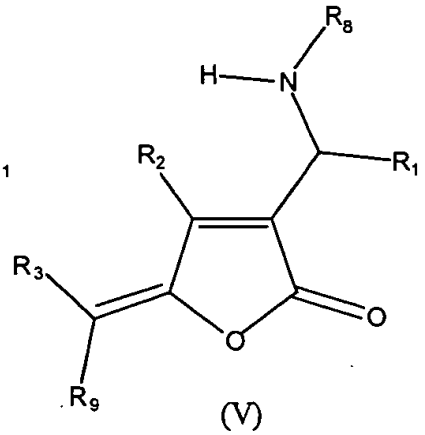
wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic.

15. (twice amended) A method for forming a compound of formula (IV) or (V), comprising reacting an aldehyde or ketone substituent in the side chain $-C(O)R_5$ of compound (III) with an amine to form a compound of formula (IV) or (V),

wherein formula (IV) and (V) are represented by:



(IV)



(V)

wherein R_1 is hydrogen, alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

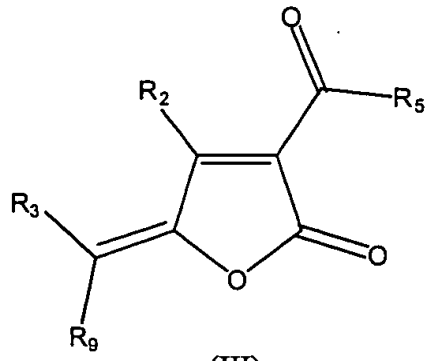
R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen;

R_8 is OH, NHR_1, $NHC(X)NH_2$, $NHC(X)NHR_1$ or R_1 where X is O, S or NR_1; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic;

and wherein formula (III) is represented by:



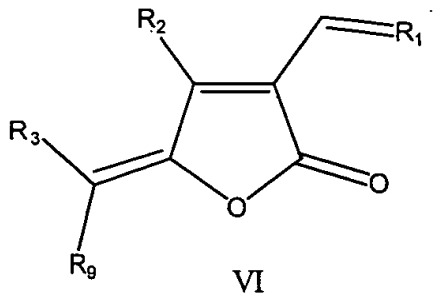
(III)

wherein R_2 and R_3 are independently or both hydrogen or halogen;

R_5 is OH or the same as R_1; and

R_9 is halogen.

25. (twice amended) A compound of formula (VI):



VI

wherein R_1 is alkyl, alkoxy, oxoalkyl, alkenyl, aryl or arylalkyl;

R_2 and R_3 are independently or both hydrogen or halogen;

R_9 is halogen; and

wherein each constituent can be substituted or unsubstituted, straight chain or branched chain, and hydrophobic, hydrophilic or fluorophilic.